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EXAMINER

MIRZA, ADNAN M

ART UNIT

PAPER NUMBER

2141

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/533,409

Applicant(s)

WANG ET AL.

Examiner

Adnan M Mirza

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCabe et al (US 2002/0016827) and further in view of Firooz et al (U.S. 6,145,019).

As per claim 1, 29, 45, 52 a method, comprising acts of: detecting a decrease in performance of a first host computer (Page 20, col. 0213); and

However McCabe failed to disclose automatically configuring a second host computer to provide additional computational resources for the first host computer in response to the act of detecting.

In the same field of endeavor Firooz disclosed legacy primary device present. A legacy primary will respond to CS0 or CSI (decision 114) with an interrupt (decision 116) and un-configured device will therefore configure itself as secondary device. Legacy secondary device present. A legacy secondary device will assert DASP during the first 450 msec and the un-configured device will therefore configure itself as primary device (col. 6, lines 28-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the automatically configuring a second host computer to provide additional computational resources for the first host computer in response to the act of detecting as taught by Firooz in the method of McCabe to reduce latency and cost while being more versatile in terms of functionality.

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3. As per claim 2 McCabe-Firooz disclosed wherein the first host computer is coupled to at least one first storage device that is accessible to the first host computer and in which data of the first host computer is stored (McCabe, Page. 16, col. 0166), and wherein the act of automatically configuring the second host computer includes an act of (Firooz, col. 6, lines 28-35): replicating the data of the first host computer from the at least one first storage device to at least one second storage device that is accessible to the second host computer (Page. 16, col. 0166).
4. As per claim 3 McCabe disclosed wherein the act of replicating the data is performed without the first host computer copying the data from the at least one first storage device (Page. 9, col. 0093).
5. As per claim 4 McCabe disclosed wherein the act of replicating the data is performed without the second host computer copying the data to the at least one second storage device (Page. 9, col. 0093).
6. As per claim 5 McCabe disclosed wherein the act of replicating the data is performed without the second host computer copying the data to the at least one second storage device (Page. 9, col. 0093).
7. As per claims 6,25,30,46 McCabe disclosed wherein the act of replicating the data includes an act of replicating all of the data that is used by the first host computer and stored on the at least one first storage device to the at least one second storage device (Page. 6, col. 0065), and wherein the act of automatically configuring further includes acts of: modifying a portion of the replicated data that corresponds to configurable parameters of the first host computer; and bringing the secondary host computer on line using the replicated data and the modified portion of the replicated data (Page. 21, col. 0239).

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8. As per claims 7,8,13,14,21,26,33,34,35,39,38,49,50,56 McCabe disclosed wherein the act of modifying the portion of the replicated data includes an act of modifying the portion of the replicated data that corresponds to a network address of the first host computer to correspond to a different network address (Page. 10, col. 0105), the method further comprising an act of: modifying a network director to redirect at least one communication addressed to the network address of the first host computer to the different network address (Page. 10, col. 0106 & col. 0107).

9. As per claim 9 McCabe disclosed wherein the act of automatically configuring the second host computer further includes an act of: shutting down the second host computer prior to the act of replicating (Page. 12, col. 0118).

10. As per claims 10,48 McCabe disclosed wherein the first host computer is not identical to the second host computer, and wherein the act of replicating the data includes an act of: replicating only a portion of the data that is used by the first host computer and stored on the at least one first storage device to the at least one second storage device (Page. 3, col. 0034 & col. 0035), the portion of the data corresponding to data of the first host computer that can be at least one of used and executed by the second host computer without modification (Page. 4, col. 0048).

11. As per claims 11,12,32,37,47,58 McCabe disclosed wherein the act of replicating the data includes an act of replicating the data from the at least one first storage device that is located in a first storage system to the at least one second storage device that is located in a second storage system (Page. 4, col. 0049).

12. As per claim 15 McCabe disclosed wherein the act of automatically configuring further includes an act of: transforming at least a portion of the replicated data of the first host computer

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for use with the second host computer when the second host computer is not identical to the first host computer (Page. 9, col. 0093).

13. As per claim 16 McCabe disclosed wherein the act of automatically configuring further includes an act of: bringing the second host computer on line using the replicated data of the first host computer (Page. 7, col. 0074).

14. As per claims 17,18,42,43 Firooz disclosed further comprising acts of: detecting an increase in the performance of the first host computer subsequent to the act of automatically configuring; and shutting down the second host computer in response to the act of detecting the increase in the performance of the first host computer (col. 6, lines 28-35).

15. As per claims 19,23,55,59 McCabe disclosed wherein the first host computer is coupled to a first storage system that includes at least one first storage device that is accessible to the first host computer and in which data of the first host computer is stored Page. 4, col. 0045), wherein the second host computer is coupled to a second storage system that includes at least one second storage device that is accessible to the second host computer and in which data of the second host computer is stored, the second storage system mirroring the data of the second host computer that is stored on the at least one second storage device to at least one third storage device Page. 3, col. 0040), and wherein the act of automatically configuring the second host computer includes acts of: shutting down the second host computer; discontinuing the mirroring of the data of the second host computer; and replicating, subsequent to the act of discontinuing, the data of the first host computer from the at least one first storage device to the at least one second storage device (page. 21, col. 0239).

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16. As per claims 20,25 McCabe disclosed wherein the act of replicating the data includes an act of replicating all of the data that is used by the first host computer and stored on the at least one first storage device to the at least one second storage device (Page. 3, col. 0034), and wherein the act of automatically configuring further includes acts of: modifying a portion of the replicated data that corresponds to configurable parameters of the first host computer; and bringing the secondary host computer on line using the replicated data and the modified portion of the replicated data (Page. 21, col. 0239).

17. As per claims 22,31,36,44,53,54,57 Firooz disclosed further comprising an act of: communicating the change in operation of the first host computer to a controller that is operatively coupled to a storage system and the first host computer; wherein the act of automatically configuring the second host computer is performed by the controller in response to the acts of detecting and communicating (col. 5, lines 16-45).

18. As per claim 24 McCabe disclosed further comprising an act of: mirroring data of the first host computer that is stored on at least one first storage device that is accessible to the first host computer to at least one second storage device that is accessible to the second host computer; wherein the act of automatically configuring includes an act of discontinuing the mirroring of the data to the at least one second storage device in response to the step of detecting (Page. 8, col. 0080).

19. As per claims 27,28,51 Firooz disclosed further comprising acts of: detecting a decrease in performance of a third host computer; and automatically configuring the second host computer to provide additional computational resources for the third host computer in response to the act of detecting (col. 5, lines 29-65).

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20. As per claims 40,61 McCabe disclosed wherein the controller includes means for modifying a portion of the replicated data that corresponds to a network address of the first host computer to correspond to a different network address (Page. 12, col. 0123).

21. As per claims 41,60 McCabe disclosed wherein the controller further includes a transformation engine that transforms at least a portion of the replicated data for use by the second host computer (Page. 12, col. 0124).

### *Conclusion*

22. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (703)-305-4633.

23. The examiner can normally be reached on Monday to Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (703)-308-5221. The fax for this group is (703)-746-7239.

24. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-746-7239 (For Status Inquiries, Informal or Draft Communications, please label "PROPOSED" or "DRAFT");

(703)-746-7239 (For Official Communications Intended for entry, please mark "EXPEDITED PROCEDURE"),



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(703)-746-7238 (For After Final Communications).

25. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Any response to a final action should be mailed to:

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Or faxed to:

Hand-delivered responses should be brought to 4<sup>th</sup> Floor Receptionist, Crystal Park II,  
2021 Crystal Drive, Arlington, VA 22202.

Adnan Mirza

Examiner



**DAVID WILEY**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**